

# Orange and Blue.

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## SCIENTIFIC AND TECHNICAL EDUCATION

BY PRESIDENT THACH.

Cecil Rhodes, in that remarkable testament in which he bequeathed the bulk of his vast fortune to promote education, uses these significant words: "And finally, as college authorities live secluded from the world and are so like children as to commercial matters, I would advise them to consult my trustees regarding the investment of these various funds, so far as they would receive great help and assistance from such advice."

Truly a severe indictment, this, of the old mediaeval or monastic type of education still dominant at Oxford, which has been aptly called the home of culture, caste and dead philosophies. And too often does the old time or Oxford type of classical education develop this recluse of whom Mr. Rhodes speaks—the man, forsooth, of rare refinement, delicate sensibilities, exquisite taste and elegant phrase; but withal a man with the filling all polished out of him—the cloister scholar, the dreamer, who, isolated and out of touch with the work-a-day world, dreams beautiful dreams, but gets nothing done; or, still sadder, perhaps he is the man who follows the trade of gentleman, who regards his education as the badge of a social superiority, the mark of an intellectual aristocracy, and holds himself above and apart from ordinary every day work, and out of all sympathy with his fellows. Doubtless from such misfits and abortions as these has sprung that widespread prejudice entertained by many excellent people concerning literary education, holding it, as they do, a useless luxury, and esteeming one who meddles with it as a mere theorist who is entirely unfit for business.

Be all this as it may (and much may be said in defense), the education of which we write—the education called scientific, or technical, or industrial—has far other aims, methods and results than those of the Oxford classical schools. Its aim is not to give culture alone, which, charming as it is, has been described by one as a selfish luxury, producing men who retire into their elegant pursuits and give themselves to self-culture with no further object. The aim of the new education, openly avowed, is rather to dignify labor and fit men for the practical business of life. Without disparaging the educational value of the classics, or the humanities, as they are called, which treat of man and his ways, it accentuates the value of the natural sciences that treat of things and their forces, and their immense value for the comfort and grace of human life.

History, language, philosophy, art and literature it would not supplant, but supplement with chemistry, physics, agriculture and mechanics, while training the intellect and fashioning the sensibilities and the imagination of the youth. It would also train his constructive and executive ability by having him do something; translating the intangible abstract concept of the mind into the concrete, tangible thing of the laboratory. Education, according to this view, is for use as well as for ornament, a means, not an end, a great instrument for doing something that is worth doing. To increase the production of wealth in all its forms, to stimulate invention, to harness the forces of nature, to contribute to the material, physical welfare and happiness of man—these are a few of the practical aims of the technological schools, aims that have not hitherto received the emphasis that their importance strenuously demands.

This, to be sure, is a fragmentary and inadequate definition, but will, I hope, suffice to suggest the essential qualities and aims of the subject under discussion.

Speaking more specifically, technological schools may be classified under three heads: (1) The school or college of technology, (2) the trade school, (3) the manual training school, or, as it is sometimes styled, the school for industrial or mechanical training.

To this class, i. e., the higher schools of applied science, belong such institutions as Cornell University, the Massachusetts Institute of Technology, the Sheffield Scientific School, the Rose Polytechnic, the Rensselaer School of Civil Engineering, etc., and that splendid system of land grant colleges existing today in every state of the union, established through the far-reaching statesmanship of the great senator from Vermont, Justin S. Morrill.

Now, the purpose or aim of these colleges is not to teach a trade, not to develop merely the individual artisan who is to do mere manual work. This, it seems, were a mere waste of public money. The aim, the wiser aim, is rather to develop captains of industry, civil, electrical and mechanical engineers, chemists, agriculturists, metallurgists, men who as entrepreneurs, or as executive officers in every field of industry, are able to explore and exploit the material resources of the land, bringing labor and capital together in mutual gain, and who are able to plan, organize and direct industries of the greatest magnitude and of the most far-reaching influence upon the community.

### TRADE SCHOOLS.

Of the second, or trade-school type of technological education, it will be necessary to speak

### Schedule Baseball, Auburn.

April 11—Mercer, in Macon, Ga.—Mercer, 8; Auburn, 6.

April 13—Clemson, on Campus.—Clemson, 3; Auburn, 0.

April 24—University of Georgia, in Atlanta.—Georgia, 8; Auburn, 2.

April 25—Georgia School of Technology, in Atlanta.—Tech, 8; Auburn, 7.

May 1 and 2—University of Alabama, in Selma.—May 1, Auburn, 6; Alabama, 5. May 2, double header; 1, Auburn, 3; Alabama, 10. 2, Auburn, 0; Alabama, 3.

## SOPHOMORE ORATORICAL CONTEST

In this annual contest which is held on the evening of the first day of May, Cadet Samford, the son of the beloved and lamented Governor Samford, was the winner.

The programme was filled with speeches on a variety of subjects and of the choicest selection. They were all delivered in a highly creditable manner, and although the exercises, supplemented with music by the college band, were long, everyone seemed to enjoy them to the end.

but briefly. As a rule, there is no need for the specific trade schools in the south. The conditions that call for them do not exist. In fact, the strictly trade school idea, the caste school, the school for the common people, is of European origin and is strongly repugnant to the American idea that every man is a citizen and that every American boy has the glorious birthright to an open career, whether it be a farmer, teacher, preacher, banker or president. Such schools presuppose a dense population, a highly organized and sharply articulated system of industries that are also highly localized, a rigid stratification of society into social classes, and the strong probability that the boy will succeed to his father's calling. Switzerland, for instance, has a system of schools in which pupils are taught the special trade of watchmaking.

And the day may soon come when in some southern city of large population, with some highly differentiated forms of industry, like pig iron or steel making, the young people may with wisdom and advantage be instructed in all the sciences relating thereto.

### MANUAL TRAINING IN THE COMMON SCHOOLS.

We come now to the third and last form of technological school, and that is manual training schools, or schools for industrial education. Here the aim is not to train, on the one hand the

engineer, nor on the other to develop the operative or the artisan, their purpose being rather distinctly educative in a general sense, though, too, the results, I believe, are of a highly practical value. "Manual training," says an authority, "includes drawing, design, carving, molding, jointing, piano playing—anything, in a word, which brings dexterity and furnishes a way of translating thought into immediate action." Its purpose is the training of the eye and the hand of the pupil and his acquisition of those elementary principles of physics and mechanics which underlie all dealings with the forces of nature and with material objects.

"One of the most significant facts of recent educational development," says the World's Work, "has been the rapid adoption in the public schools of manual training simply as a part of education, and not as a specific preparation for a trade." Ten years ago there were only thirty-seven such public schools. Today there are 170 cities in which pupils of the public school receive manual training as part of their regular course.

According to the report of the commissioner of education, there are 125 separate schools distinctively devoted to manual training, with an attendance of 40,000 children. Both the National and Southern Educational Associations, realizing the great educational value of manual and industrial training, and the need for such training keenly felt throughout the south, resolved that the curriculum of every high school should include a thorough course in manual training.

The late distinguished educator, Dr. William LeRoy Broun, established at the Alabama Polytechnic Institute at Auburn the first manual training laboratory in the south, having thoroughly studied the Russian theory of mechanic arts instruction as displayed at the Centennial exhibition in Philadelphia in 1876. Of its nature and value as a teaching subject he says:

"From an experience of eight years in an institution where a well-equipped laboratory of mechanic arts constitutes part of its educational equipment, I cannot express with too strong emphasis my appreciation of the beneficial effects of the modern method of teaching what is known as manual training. It has come to stay. Its object is not to make mechanics nor the making of things, but the making of men. It develops order, accuracy, perseverance and self-reliance, and while imparting manual skill and giving strength to the body, its exercises tend to a marked degree to develop the constructive and executive faculties.

"Drawing, which gives the ability to express the concept (Continued on third page.)

## EIGHTH ANNUAL FIELD MEET RECORD BREAKER

This occasion was a very interesting one. There was much competition manifested between the participants, as well as between the classes. The Junior class scored the highest number of points, the Sophomores second and Seniors third.

Major Knight, the athletic instructor, is to be congratulated on the very efficient work he has done in bringing out such a fine athletic team. Another commendable feature was the promptness with which the events followed each other, thus avoiding the usual tiresome delay.

The spectators who crowded the grand stands continually applauded the graceful jumping and vaulting and the sprints made by the runners.

For the first three in each event there were handsome prizes.

Mr. Linwood Seale, of Sumter County, proved himself to be the best all-round athlete in college by winning the greatest number of points, for which he received a handsome medal. Mr. Frank Cawthon followed with a close second.

Seale—35 points.  
Cawthon—32 points.  
Juniors—120 points.  
Sophomores—79 points.  
Seniors—10 points.  
Freshmen—0.

100-yard Dash.—1, Seale, 10 3-5 seconds. 2, Cawthon. 3, Landrum.

Putting the Shot.—1, Lay, 34 feet. 2, Elmer. 3, Moon.

220-yard Dash. 1, Seale, 24 3-5 seconds. 2, Dean. 3, Daly.

Half-mile Run.—1, Ward, T. A, 2 minutes, 21 2-5 seconds. 2, Kimbel. 3, Ward, W. F.

120-yard Hurdle Race.—1, Cawthon, 17 4-5 seconds. 2, Seale. 3, Landrum.

Running High Jump.—1, Searcy, 5 feet. 2, Moon, Bell.

Relay Race, 1 mile.—1, Landrum, total, 5 minutes, 25 4-5 seconds. 2, Moon, Lacy.

Quarter-mile Run.—1, Landrum, 58 4-5 seconds. 2, Seale. 3, Allison.

Pole Vault.—2, Lay, 99 inches. 2, Cawthon. 3, Boyd.

Running Broad Jump.—1, Cawthon, 16 4-10 feet. 2, James. 3, Dean.

### OFFICIALS.

Referee—Professor Wilcox.  
Starter—Colonel Patrick.  
Judges—Clay, Bragg, Professor Ross.

Timekeeper—Stokes.  
Measurers—Thornton, T. E., and Avery, A. M., Jr.  
Scorer—Thornton, W. L.

Surgeon Holmes Russell, U. S. N., paid his nephew, H. F. Troutman, a visit recently. Dr. Russell is Fleet Surgeon of the North Atlantic Squadron, and while here made many friends who will always remember him most pleasantly.



## Orange and Blue

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Protestant Episcopal Holy Innocents Chapel—Rev. R. C. Jeter, Priest in charge. Services every Sunday at 11 a. m. and 7 p. m. Holy Communion 7:15 a. m. every Sunday except the first Sunday in each month. Evening prayer, every Friday at 4:30 p. m. Sunday School 9:30 a. m., S. L. Toomer, Superintendent.

College Y. M. C. A.—Sunday 3 p. m. Y. M. C. A. Hall, College Building.

The article on Scientific and Technical Education, by President Thach, which appears in this issue, was taken from the Tradesman, published at Chattanooga, Tennessee. It is interesting and instructive, as it deals with the modern practical educational methods. The immense

advantage of the new idea of college training over the old impractical style is clearly set forth. Some interesting facts in the history of the development and many important statistics are given.

### The Baseball Trip to Georgia.

There are some things about this trip that ought not to go un-commented upon by the Orange and Blue, the mouthpiece of the student body of Auburn.

We will long remember the marked difference in the reception and consideration shown us and the manner of defeat administered by the University in Athens and the Tech in Atlanta.

If Auburn ever had that narrow, contemptible and little spirit of selfishness which styles a victor a rascal to excuse a defeat, we are thankful to have fully outgrown it.

Georgia defeated us fairly and treated us as friends, and as such we hope next year to return the compliment. We are disappointed by the loss of the game, but this is largely lost sight of by reason of the hospitalities shown our team.

The words rivalry and hatred are not synonymous. Georgia is Auburn's greatest rival in athletics, and for that very reason ought to be her fast friend. Taking both these conditions for granted, we insist that those who follow us perpetuate the spirit.

A true gentleman is ever ready to acknowledge a kindness and as ready to resent an injustice. It is our opinion that the Tech did a shady trick in regard to the park matter discussed in the last issue of the Orange and Blue. And to put our feelings in mildest tones, we are thoroughly disgusted, not because we were defeated, but because of the style in which they used their advantage.

Although the University of Alabama defeated us in baseball, it is perfectly clear that they did not have the walk-over they expected.

The results are thoroughly satisfactory to us, as to the fairness of our defeat. We want it strictly understood that we have absolutely no kick to make, and hope the University will be awarded all the honors due her by reason of the victory.

We are confident that if the season had to be gone over some of our defeats would be turned into victories. We do not say what Auburn will do next year, but in the light of recent development in our young team, it is safe to say that if the men return next year their work will be of a highly creditable character.

We are especially pleased with the steady improvement made throughout the season, and take it to be no bad sign—the showing made in Selma.

The University without doubt has the best team it has had for several years, and an old team, and we are not despairing.

The ladies of the Episcopal church gave a bazaar last week for the purpose of raising funds for their church.

"Shall I brain him?" cried a hazy, And the victim's courage fled.  
"You can't, it is a freshman;  
Just hit him on the head."

—Exchange.

### Memorial Day Exercises.

Notices of the exercises appeared in the Montgomery Advertiser and Journal and also in the Opelika Post. That in the Post is well written and accurate, and the Orange and Blue takes the liberty to reproduce it in full below:

#### MEMORIAL DAY EXERCISES.

On the afternoon of the 27th. in Langdon Hall, unusually beautiful and impressive memorial services were held under the auspices of the U. D. C. The day was ideal and the concourse of students, school children and citizens gave evidence of how dear this occasion is to every Southern heart. The decorations in the hall were extremely tasteful. The stage was occupied by the U. D. C., Veterans and those taking part in the program.

The very interesting and well arranged program prepared by Mrs. B. B. Ross, president of the U. D. C., was then given. President Thach, as chairman, in well chosen words made introductory remarks. He paid a heartfelt tribute to that noble woman, Mrs. P. H. Mell, who labored long and well among us in the interest of all that looks to the perpetuation of the memory of the "Lost Cause." He said her inspiring presence was sadly missed and that as long as the shaft erected to the Confederate dead, the fruit of her efforts, should endure, the memory of her zeal and devotion would live. This tribute touched a responsive chord in every heart.

A beautiful selection was recited by Miss Modesta Beasley. Her clear enunciation, pleasing manner and appreciation of her subject held the attention of the large audience.

The Oration of Mr. Watson Davis was pronounced one of the best ever delivered on a similar occasion. His treatment of his subject was most happy, his language chaste, his delivery graceful.

The music, under the direction of Miss Mary Casey and Prof. Fullan, was furnished by the A. P. I. band, the school children, the college quartette, consisting of Messrs. Wilmore, Herndon, Lay and Knight, and Miss Mary Drake. The song by the school children was highly creditable. The music by the band was extremely well rendered and most enjoyable. Two exquisite numbers were given by the quartette in a most artistic manner. Soft, tender strains of old time Southern melodies was the selection rendered by Miss Mary Drake on the violin.

At the conclusion of the programme, beautiful flowers were carried to the cemetery, and the monument, gracefully trimmed with green, was almost hidden by the offerings of love.

As the last rays of the setting sun touched the dark pine trees to gold, all stood with uncovered heads while "Tenting on the Old Camp Ground" was sung. A salute was fired, taps sounded and a very impressive and inspiring occasion was over.



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SCIENTIFIC AND TECHNICAL EDUCATION

(Continued from first page.)

graphically, is also an essential element of a scientific education universally recognized of value. Hence a school of drawing, as an adjunct of the school of mechanic arts, is a necessary department of a manual training school, and the manual training received from the series of graduated exercises, when combined with the study of science as practically taught in the laboratories, gives an education eminently fitted for the American boy of the nineteenth century."

In this connection I quote a most interesting letter from Mr. Blair, of Maryland, chairman of the executive committee of the Maryland Educational Association: "Under the head of paper, cardboard, etc., you will find a total cost of about \$70 for a full year; this branch had about ninety scholars for about ten full months. In the woodworking classes we use a total for tools, etc., \$430. We use these for three classes of from fifteen to twenty each. We have been using the tools for nearly three years, and none of them are broken or lost and seem to be in as good condition as when purchased. We gave our instructor \$600 last year and \$800 this year; and no doubt will raise him another \$100 next year. We give all manual training classes three hours per week; the boys like it. In fact, one of the punishments for poor work in regular school work is depriving the offenders of the privilege to go to the manual training school.

"We have found very beneficial results from this work. The boys take a deep interest in all of their work and stand better than before the introduction of manual training. The hand and the eye are trained and the habits of neatness and accuracy are cultivated so that in the school room these are used to advantage in the regular studies.

"The state of Maryland appropriates \$1,500 per year to each county for manual training, out of which the instructor's salary and all expenses must be paid. We have been fortunate in having the only one in our county (Baltimore county) to have the whole appropriation. Last year, after paying all expenses (which include buying all tools, etc.), we had a surplus of over \$250.

"The average age of children doing paper work is 9 years; they vary from 8 to 11. The next class, or those in cardboard work, is about 10, varying from 9 to 12.

"After this they begin on knife work, lasting nearly a whole year, when at the age of 13 they are ready for bench work."

The expense of equipment, suggested by Mr. Blair, though small, may yet seem beyond the means of many smaller schools, but the system, as I am assured by Superintendent Gibson, of Columbus, Ga., can be established at a much smaller cost. Ample time for instruction can be obtained by judicious lopping off of subjects that are almost worse than useless. For instance, it is commonly agreed among educators that entirely too much is expended by our schools on certain portions of arithmetic. Surely a great portion of my school days was ex-

pended upon all the fine intricacies of partial payments, interest and bank discount, for all of which I have found but precious little use.

And certain lists of kings and of peaks and rivers in Siberia are about as digestible as a stomach full of marbles. Let some of this go and the time be applied to manual training.

Certainly teachers and pupils and the public who have been once connected with this simultaneous training of the eye and the hand are enthusiastic believers in its beneficial effects. Once tried it is never dropped. Walter Page declares it the first thoroughly sound plan of training youth since classicism began its career after the revival of learning in Europe.

Both the educational and economical advantages arising from manual training are obvious, though it were perhaps inappropriate to enter here upon technical details.

First of all, the introduction of shop work into the public schools would find a place for that large number of boys who have no great aptitude for books, for abstract metaphysical learning that requires close analysis, or for those masses of facts and figures that are carried by the memory. I am sure that too much attention has been given by our school training to the mere anatomy of learning, to mental gymnastics and acrobatic feats that may mean nimbleness rather than strength of mind. Oftentimes the clever boy with a mind stuffed with all the fights historical from Marathon to Waterloo in order categorical, stands a mere paralytic in the presence of a fact; in the presence of something that has to be done. I remember that at college I swallowed, undigested, the huge bulk of Bloxham's Chemistry, yet never had a test tube in my hand, and was utterly incompetent to perform a simple experiment to determine the presence of iron in a mineral spring.

On the other hand, I have seen a boy that would pass as dull in the ordinary studies of the school display in the shop some of the finest qualities of mind—a sharp, discriminating perception, that is the clear eye, for form, magnitude, proportion and grace; a steady will, that is, the trained hand, that guided the keen-edged tool to the breadth of a hair; a fine constructive power, that is, the will to do, that turned a lot of unrelated fragments of wood and metal into a thing of beauty and utility. Certainly these are high qualities worthy of all training and of all praise.

"It has been clearly demonstrated that children who received both mental and manual training excel in mental work those who receive only mental training." Today this is an educational dictum universally accepted; though a decade ago it was laughed to scorn.

The introduction of shop work promotes a wholesome sense of the dignity of hand labor, and completely emancipates from that false pride and snobishness, unhappily at one time so prevalent in our section, that regards labor as a badge of social inferiority and a thing to be despised. One of the most hopeful sights of the times is to see a hundred or more Southern youths in shirt sleeves and blue

overalls skilfully manipulating some complex machine and shaping up some finished product of their own skill and ingenuity. These young men are not "too fine for any form of labor, and are qualified to take useful places in the industrial world rather than swell the throng of useless and unhappy applicants in the over-crowded and underpaid positions in shops, stores and counting houses, where a generally poor living may be obtained without soiling the fingers."

Gen. Francis Walker, in speaking of the advantages of industrial education, dwells (1) upon the impulse communicated thereby to invention and discovery; (2) upon the disclosure here and there of rare mechanical genius which, under the old system, might have been hopelessly lost in a dreary wilderness of words; (3) upon the value of the arts required in saving disrepair about the home, enabling the thousand needed strokes of the hammer to be well and promptly given, securing the insertion of the nail in time to save nine; the oiling of the discordant hinge, the hanging of a picture, or the repair of a lock; upon the virtue which a generous mechanical education of the people would have in preserving and exalting the priceless sense of social decency, which keeps the fence along the village street in order, the gate hung, the glass set, the shutter in place.

Perhaps nowhere more than in the desolate rural regions of the South is needed this sense of neatness and tidiness. Nowhere is more needed this sense of thrift and attention to the little practical details of farm life that make the difference between happiness and discontent, success and failure.

And this brings us lastly and chiefly to "the advantages to be derived by the community at large from the improvement of the industrial quality of its citizens through the mechanical education of our youth and their acquisition and mastery of the elements which underlie all mechanic arts."

This is not the time to enter upon a general discussion of in-

dustrial education, but the words of an eminent English author are well worth pondering: Lord Brougham once said he hoped the day would come when every man in England would read Bacon; William Corbett said he would be contented if a time came when every man in England would eat bacon. First and foremost a man has to earn his living, and the light we want is the light to help us to work and find food and clothes and lodging for ourselves. The three R's," if industrial training has not gone along with them, are apt, as Miss Nightingale observes, to produce a fourth R—of Rascality. "Every boy born into the world should be put into the way of maintaining himself in honest independence. No education that does not make this its first aim is worth anything at all. The being able to do something is of infinitely more value than the ability to answer questions."

Of old, the Hebrews, whose public and private economy was of divine inspiration, required every boy to know a trade. The Egyptian apprenticeship of the Israelites in brick making is familiar history. Moses was a shepherd; Jacob's skill in cattle-breeding was a triumph in animal industry, and a confusion to his father-in-law; King David was a shepherd; Paul, the mightiest single factor in expanding the religion of Christ, maintained a splendid independence by his trade as a tent maker; while the great Master and Teacher, the Light of the World, pondered for thirty years on the deep things of Heaven and earth as He plied His trade in the humble shop of the carpenter, Joseph.

But argument is entirely needless; the industrial hope of the South, we all know, is in a wider dissemination of scientific and manual education. A universal knowledge of the forces of mechanics, and of the great material resources that lie slumbering in the depths of our hills and fields and forests—this is the supreme need of the impoverished Southland of ours.

And not only at the top must we have this industrial skill, but

diffused through every part of the common life. Not only do we need the expert captain of industry, the employer, but the workman as well, the man in the ranks, he, too, must have high intelligence and training that gives that elasticity and alertness of mind which brings adaptability and power to get command of all new methods, appliances and labor-saving devices. It is this power, says our American consul at Liverpool, that makes the American two or three times as efficient as the average British workman.

INCREASE OF WEALTH. There is no more thoroughly established law than the direct dependence of increase in wealth upon intelligence. The highest daily wage is where there are the best and highest paid schools. Massachusetts expends \$11,000,000 more on schools than does Alabama, and Massachusetts produces annually \$400,000,000 more of wealth than Alabama. Alabama, with 41 per cent. of illiteracy, averages \$580 worth of property to each person over 10 years of age, while Massachusetts, with 6 per cent. of illiteracy, averages \$1,583. In savings bank deposits Alabama is almost nil, while Massachusetts boasts 1,500,000 depositors, with a deposit of \$534,000,000, or an average of \$358 per capita. It has been well said that Alabama cannot afford to allow another generation to grow up in ignorance of tools and industrial education.

Being in the formative state and unhampered with established prejudices that have to be unlearned, the Southern school system offers an open field for full and free application of industrial training; and I prophesy therefrom immense results for good within a few years. It is no longer a question of debate or experimentation as to whether industrial education is the most practical and potent agency for the educational and economic development of the negro race. Certainly in our own State the justly famous Tuskegee Institute and many smaller institutions established through its influence furnish incontestable

(Continued on last page.)

# MAY WE SUIT YOU?



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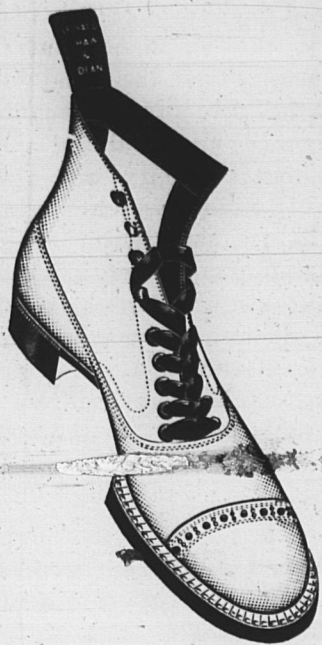
Remember our line of School Boosk, Stationery, etc., is the largest in town.

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have given our trade enables us to say fearlessly that they are not excelled in style, fit or wear by any shoes at anything like the price.

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Then we have good honest shoes at lower prices. Shoes that are satisfying.

Every good thing in shoes can be had here at lowest prices.

T. A. FLANAGAN, AUBURN.

### SCIENTIFIC AND TECHNICAL EDUCATION

(Continued from third page.)

proof of the wholesome, elevating influence of this form of education upon the negro race.

And equally desirable, I hold, is this industrial education for vast masses of our own white race. The trained hand and the trained eye, or brain in hand, our white children must have, or gradually but surely will all forms of industrial occupation pass from their control.

#### INDUSTRIAL TRAINING IN RURAL SCHOOLS.

A broad and most fertile field for both elementary and industrial education lies in that back land of civilization lying beyond our cities, villages and fertile regions, along the ridges and hollows and caves of the great foothills of the Appalachian system, extending through the Southern States, the poor whites, the Barrenites, the Crackers, as they are sometimes jeeringly called. By nature they are endowed with many admirable qualities of heart and mind—-independent, hospitable, courteous, virtuous, patriotic, all this I know them to be. But narrow, prejudiced, their horizon narrowed between the tops of their silent hills, they have all the sad limitations of centuries of ignorance. In the rough they have the making of splendid citizens, provided they be caught young and put to some sort of industrial training. In Alabama there are 31,000 of these illiterate whites of voting age, 1,500 in one county and

1,000 in another. The situation stirs our consciences. The men who afford the means and project the methods for reaching these stranded and belated people may justly be called patriots.

And throughout the entire system of rural schools there should be introduced the same principle of industrial and artistic training. Carving, as is practiced throughout Switzerland by the country folk, basket making, carpentry and many other forms of artistic handwork can be taught. And surely the principles of agriculture, floriculture, horticulture, all forms of nature study, habits of birds, beast and fish, botany, why plants grow, and how plants grow, all these are of infinite interest and of almost infinite value. More of these and less of ancient history and cube root will, I think, put more cream into the churn and more beans into the bin and prevent the wholesale desertion of the farm for city life. Eighty-seven per cent. of the people in Alabama live in the rural regions, and 90 per cent. of all children complete their education in the elementary schools. Absolutely indispensable it is, then, if we are to accomplish a general uplift of the people, that our work begin in the elementary schools. Colleges of agriculture, experiment stations, bulletins, farmers' institutes will avail much, but the real work of regenerating our agriculture must begin with the children.

Truly we need more of the methods of science in all our applications of labor. Common

sense has been defined as the power to see the obvious; science, the power to see that which is less obvious.

Common sense we have in abundance, but how many farmers in any country are able to apply to their business the beneficial results of labor-saving machines or of recent discoveries in practice of farm life? Few, indeed, they be.

We have all read somewhat of the resources of the South; her genial clime, her sapphire skies, her inexhaustible mineral resources, her prodigious water power that goes idly to the sea, and her inexhaustible, unrelatable etceteras.

Well, all this adulation and complacent hyperbole are of little reckoning!

There are two factors in the economic make-up of any community; the land and the man. And the latter is by far the preponderant power, be the former ever so fair. Only consider the bleak shores and the stubborn soil of New England. And yet by the education of her children, by the establishment of schools, colleges and universities (the best to be had) by the adoption

of mechanical contrivance and artistic improvement that make for increased productions, by alertness of mind, by refinement of taste, and by the keenest of business sense, these same barren hills and inhospitable shores are today the home of manufacturing, the seat of culture and the financial heart of the nation.

The same causes will produce the same results in the South as well as in the North and East.

NEW YORK, March 24, 1903.

DEAR EDITOR:

Some time ago we sent to the various college publications announcements of our prize essay contest. We are most grateful to the editors for the courtesy they have shown in printing the rules of the contest. We ask a further favor that you will print the following "copy" for the information of the students at your institution.

The New York Alumni Association of the Alpha Tau Omega Fraternity wishes to announce that ex-President Grover Cleveland, President Benjamin Ide Wheeler of the University of California, and Chancellor E. Benjamin Andrews of the University of Nebraska, have consented to act as judges of the essays submitted for the prize of \$50, which is to be given for the best essay on "The Effect of the Fraternity on American College Life."

Any student working for a recognized degree in any American college or university may compete. No essay shall contain more than 3,000 words. Each contestant shall on or before the first day of May, 1903, mail to the chairman of the committee three typewritten copies of the competitive essay, signed in a pseudonym. He shall also, at the same time, send to the chairman of the committee a sealed envelope containing his name and address, with his pseudonym on the outside.

Arrangements have been made whereby the essay successful in this contest may be submitted in competition for a prize of \$150, to be given by the College Essay Publishing Company, of Boston, Mass. H. W. PITKIN, 521 West 123d Street, New York City.

## Alabama Polytechnic Institute Auburn, Alabama

**COURSE OF INSTRUCTION.**—The courses of instruction include the Physical, Chemical and Natural Sciences, with their applications: Agriculture, Mechanics, Astronomy, Mathematics, Civil and Electrical Engineering, Drawing, English, French, German and Latin Languages, History, Political Economy, Mental Science, Physiology, Veterinary Science and Pharmacy.

**LABORATORY INSTRUCTION.**—Laboratory instruction and practical work are given in the following departments: I. Chemistry. II. Engineering, Field Work, Surveying, etc. III. Agriculture. IV. Botany. V. Mineralogy. VI. Biology. VII. Technical Drawing. VIII. Mechanic Arts. IX. Physics. X. Electrical Engineering. XI. Veterinary Science. XII. Mechanical Engineering. XIII. Pharmacy.

**LOCATION.** The College is located in the town of Auburn, sixty miles east of Montgomery, on the line of the Western Railroad.

**BOARDING.**—The College has no barracks or dormitories, and the students board with the families of the town of Auburn, and thus enjoy all the protecting and beneficial influences of the family circle.

There is no charge for tuition made to residents of Alabama. Non-residents pay a tuition fee of \$20.00. Incidental fee per session, \$5.00; library fee per session, \$2.00; surgeon's fee per session, \$5.00; Board per month, \$9.50 to \$15.00. All fees are paid on matriculation.

CHARLES C. THACH, M. A., PRESIDENT.

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